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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/572,784	03/21/2006	Jochen Wehner	WEHNER1PCT	9555
7055 7590 05/13/2011 GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191			EXAMINER LEONARD, MICHAEL L	
			ART UNIT 1763	PAPER NUMBER
			NOTIFICATION DATE 05/13/2011	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

gbpatent@gbpatent.com
pto@gbpatent.com

Office Action Summary	Application No. 10/572,784	Applicant(s) WEHNER, JOCHEN	
	Examiner MICHAEL LEONARD	Art Unit 1763	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Response to Amendment

The Declaration under 37 CFR 1.132 filed 04/28/2011 is sufficient to overcome the rejection of claims 22-25, 28-41, and 43 based upon Sondhe et al. in view Gajewski et al. and Claims 26-27 and 42 based upon Sondhe et al. in view Gajewski et al. and Motsinger et al.

Response to Arguments

Applicant's arguments, see Arguments, filed 04/28/2011, with respect to the rejection(s) of claim(s) 22-43 have been fully considered and are persuasive.

Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Claim 22-25, 28-41, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,340,652 to Sondhe et al. in view of U.S. Patent No. 6,821,059 to Markusch et al.

Claims 26-27 and 42 are rejected under 35 U.S.C. 103 (a) as being unpatentable over U.S. Patent No. 5,340,652 to Sondhe et al. in view of U.S. Patent No. 6,821,059 to Markusch et al. that has been explained above and is applied here as such in view of U.S. Patent No. 3,217,536 to Motsinger et al.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 22-25, 28-29, 33-41, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,340,652 to Sondhe et al. in view of U.S. Patent No. 6,821,059 to Markusch et al.

As to claims 22, 24-25, 28-29, 40-41, and 43, Sondhe discloses an article comprising an epoxy base coat and a urethane top coat (Abstract) that is generally liquid at ambient temperature (Column 9, lines 22-23) wherein the article is generally formed by adding a layer of the urethane composition to the epoxy composition (Column 4, lines 22-25). Sondhe discloses that the urethane system is mixed in any convention manner generally applied under pressure to the top of the previously applied epoxy composition while the epoxy base layer is still tacky and then is finally cured while the epoxy system is still curing (Column 13, lines 29-47). Sondhe further discloses it is desired that the epoxy base layer is not fully cured when the urethane is applied so that a chemical bond will form between the layers. Because of the ingredients of both the epoxy system and the urethane system cure occurs at ambient temperature (Column 13, lines 55-62).

Sondhe discloses a urethane gel topcoat that can be applied at ambient temperatures to the epoxy base coat, but fails to disclose the urethane topcoat of the presently claimed invention.

Markusch discloses a urethane gel topcoat characterized by its ability to be adjusted with respect to its viscosity in response to changing temperature and humidity conditions is achieved with a mixture comprising (Abstract):

(I) liquid at ambient temperature polyisocyanate (Column 5, lines 35-47) and
(II) and isocyanate-reactive component comprising a mixture of high molecular weight polyol, low molecular weight polyol, and viscosity adjusting aromatic amines (Column 5-Column 7, line 50). Markusch further discloses wherein the viscosity adjusting aromatic amines is first mixed with the liquid isocyanate reactive component prior to mixing with the polyisocyanate component (Column 8, lines 37-42). Markusch further discloses low molecular weight polyol (Column 6, lines 31-43) such as tripropylene glycol which is a polyether polyol that has a calculated molecular weight of 194 g/mol and a calculated hydroxyl group concentration of 10.3 mol OH/kg polyol, which falls within the claimed ranges.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to substitute the urethane topcoat of Sondhe for the urethane topcoat of Markusch because it is prima facie obvious to combine two compositions (urethane topcoats) each of which is taught by the prior art to be useful for the same purpose (as urethane topcoats applied at ambient temperatures, in order to form a third composition to be used for the very same purpose....(synthetic resin composite material). The idea of combining them flows logically from their having been individually taught in the prior art." In re Kerkhoven, 626 F.2d 846, 850,205 USPQ 1069, 1072 (CCPA 1980).

Furthermore, Markusch discloses that the addition of the aromatic amine component (viscosity-adjusting component) attributes to improvements in desirable mix viscosity at any application temperature without any noticeable shortening of the gel time (Column 3, line 23-30) and that the desired viscosity of the gel and the gel-time is directly affected by the amount and selection of aromatic amine component. Therefore, a person of ordinary skill in the art would be motivated to include the viscosity-adjusting component to isocyanate-reactive component of Sondhe because it allows for better control over gel-times and viscosity of the gel during application to the epoxy-resin.

As to claim 23, Markusch does not directly disclose that the gel coat at 23 °C displays an elongation at break of at least 3%, however, because all of the components are present in the composition it is inherent that the composition would have these properties. If it is the applicants' position that this would not be the case: (1) evidence would need to be presented to support applicants' positions; and (2) it would be the Office's position that the application contains inadequate disclosure that there is teaching as to how to obtain a composition with these properties.

As to claims 33-36 and 39, Markusch discloses in the curative agent the amount of polyol being from 90 to 10 weight percent and the amount of aromatic amine is present is dependent upon the temperature and the desired viscosity and gel time of the gelcoat (Column 3, lines 23-30). It is the examiner's position that amount of amine chain extender is a result effective variable because changing them will clearly affect the type of product obtained. See MPEP § 2144.05 (B). Case law holds that "discovery of an optimum value of a result effective variable in a known process is ordinarily within

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the skill of the art." See *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). In view of this, it would have been obvious to one of ordinary skill in the art to utilize the amounts disclosed by Markusch (Column 9, lines 1-7) including those within the scope of the present claims so as to produce desired end results.

As to claims 37-38, Markusch discloses polyether polyols as well as polyester polyols that can be used for the high MW and low MW polyols (Columns 5-6).

Claims 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,340,652 to Sondhe et al. in view of U.S. Patent No. 6,821,059 to Markusch et al. that has been explained above and is applied here as such in view U.S. Patent No. 4,950,792 to Althaus.

As to claims 30-32, Markusch discloses aromatic amine used in the polyurethane mixture, but fails to disclose the preferred aromatic amine.

However, Althaus discloses MCDEA as a suitable aromatic amine component to be used as a chain-extending element in analogous polyurethane systems and further discloses that such aromatic amines show unexpectedly better elastomer properties with equally advantageous processing times (Column 2, lines 12-19).

Therefore it would have been obvious to use the chain extender of Althaus for the chain extension step of Markusch since they are disclosed as being preferred for analogous polyurethane systems, and it is prima facie obvious to add a known ingredient to a known composition for its known function. *In re Lindner* 173 USPQ 356; *In re Dial et al* 140 USPQ 244.

Claims 26-27 and 42 are rejected under 35 U.S.C. 103 (a) as being unpatentable over U.S. Patent No. 5,340,652 to Sondhe et al. in view of U.S. Patent No. 6,821,059 to Markusch et al. that has been explained above and is applied here as such in view of U.S. Patent No. 3,217,536 to Motsinger et al.

As to claims 26-27, Sondhe and Markusch teach the basic process as set forth above. Not disclosed is the synthetic resin contains reinforcing materials. However, Motsinger discloses a polyurethane coating on an epoxy resin laminated with fiberglass (Column 3, line 66, column 4, and line 1). It would have been obvious to a person of ordinary skill in the art to combine the fiberglass laminated epoxy of Motsinger with the composition of Markusch and would have been motivated to do so for such desirable properties as to provide strength and weather protection (Motsinger, Column 4, and lines 1-14).

As to claim 42, Markusch and Sondhe disclose the basic material as set forth above. Not disclosed is that it is part of a wind vane. However, Motsinger discloses a similar material on a wind vane, in that it measures wind currents (Column 1, lines 50-55). It would have been obvious to a person of ordinary skill in the art to combine the use of Motsinger with the composition of Markusch and would have been motivated to do so since a wind vane needs to be strong and weather resistant (Motsinger, Column 4, lines 1-14).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL LEONARD whose telephone number is (571)270-7450. The examiner can normally be reached on Mon-Fri 7:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on 571-272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Milton I. Cano/
Supervisory Patent Examiner, Art Unit 1763

/MICHAEL LEONARD/
Examiner, Art Unit 1763